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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,945	06/21/2001	Phillip S. Wilson	P281188	6284
909	7590	01/10/2005	EXAMINER	
PILLSBURY WINTHROP, LLP			SALVATORE, LYNDIA	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	

1771

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/868,945	WILSON, PHILLIP S.	
	Examiner	Art Unit	
	Lynda M Salvatore	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment and accompanying remarks filed 11/01/04 have been fully considered and entered. Claims 1-5 have been amended as requested. Despite this advance, Applicant's amendments have not been found to patently distinguish the claims over the prior art combination of Okada et al., US 4,739,007 in view of Christiani et al., US 5,747,560 and Applicant's arguments are not found persuasive of patentability for reasons set forth herein below.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-3 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al., US 4,739,007 in view of Christiani et al., US 5,747,560 as set forth in section 3 of the last Office Action.

Applicant amended claims 1-5 to include the limitation of "low pressure compression" and further amended claim 1 recite at least some of the reinforcing particles are not completely exfoliated and are about "20 to 30" layer thick. Applicant argues that the Okada et al., and Christiani et al., references fail to teach the limitation of "low pressure compression". Applicant further argues that the Christiani et al., fails to teach that at least some of the reinforcing particles are about 20 to 30 layers thick. These arguments are not found persuasive. With regard to the "low pressure compression" limitation, it is the position of the Examiner that said limitation constitutes a method limitation not germane to the final product structure. The presence of process limitations

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on product claims, in which the product does not otherwise patentably distinguish over the prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656 Recall, Christiani et al., teaches molding the composite into a variety of shapes such as panels and sheets (Column 24, 43-49). Thus, it is the position of the Examiner that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process. The burden is shifted to Applicant to evidence an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,295

Additionally, with regard to the protrusion limitation, Christiani et al., teaches that composite articles may further embossed (Column 24, 45-50). The Examiner maintains that embossing would produce the recited protrusions in claim 1. As to the height and thickness limitation of the embossed protrusion, the Examiner maintains that these features are dependent on the desired end use of the composite and easily determined by one of ordinary skill in the art.

With regard to the limitations pertaining to the number of non-exfoliated particle layers, the Examiner acknowledges that Christiani et al., fails to explicitly teach non-exfoliated reinforcing particles having 20 to 30 layers. However, Christiani et al., teaches that at least 80% by weight of the layers of the material delaminate (or exfoliate) to form platelet particles substantially homogeneously dispersed in the polymer matrix (Column 21, 39-47). Christiani et al., further teaches that in a preferred embodiment some layers will not delaminate (or exfoliate) in the polymer melt and will form platelet particles comprising those layers in a coplanar aggregate. To that end, it appears according to Applicant's specification, that the number of non-exfoliated particle layers is a function

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of the type of swellable-layered minerals and/or methods used to exfoliate the particles.

As such, the Examiner respectfully points out that Applicant has not claimed any specific mineral material and/or method of exfoliation, which would serve to patently distinguish over the prior art. Thus, absent patentably distinguishable limitations and/or unexpected results of providing about 20 to 30 layers of non-exfoliated particles, it is reasonable to expect that the number of non-exfoliated particle layers present after exfoliation would be consistent with what Applicant is claiming.

4. Claims 4 and 5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al., US 4,739,007 in view of Christiani et al., US 5,747,560 as applied to claim 1, and further in view of Simm et al., US 4,447,488 as set forth in section 4 of the last Office Action.

The above rejection is maintained and Applicant has not presented any new arguments for which to consider.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

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advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1482. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 28, 2004

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